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PROGRESS REPORT
of the
FOREIGN REGIONAL ANALYSIS DIVISION
ECONOMIC RESEARCH SERVICE

This progress report includes a summary of the current research of the Division and a preliminary report of progress made during the preceding year. It is primarily a tool for use of scientists and administrators in program coordination, development and evaluation; and for use of advisory committees in program review and development of recommendations for future research programs.

The summaries of progress on USDA and cooperative research include some tentative results that have not been tested sufficiently to justify general release. Such findings, when adequately confirmed, will be released promptly through established channels. Because of this, the report is not intended for publication and should not be referred to in literature citations. Copies are distributed only to members of Department staff, advisory committee members and others having a special interest in the development of public agricultural research programs.

This report also includes a list of publications reporting results of USDA and cooperative research issued between July 1, 1967, and June 30, 1968. Current economic research findings are also published in the ERS publications Agricultural Economics Research, a quarterly, and The Farm Index, a monthly. This progress report was compiled in the Foreign Regional Analysis Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

UNITED STATES DEPARTMENT OF AGRICULTURE
Washington, D.C.
November 1968

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INTRODUCTION

The Foreign Regional Analysis Division is one of two research divisions of the Economic Research Service which works in the foreign field. Its function, through basic and applied research, is to analyze effects of world, regional, and country developments and trends in agricultural production, consumption, and trade to disclose opportunities for developing new markets and maintaining and expanding existing markets for U.S. farm products.

The research and service work of the Division involves 49.4 scientist man-years. The members of this staff perform economic and statistical analysis work in Washington; travel abroad and gather data not available through other channels; and plan, negotiate, and direct the execution of research contracts.

The Foreign Regional Analysis Division is reimbursed for research work done for the Central Intelligence Agency and the Agency for International Development. For CIA the Division annually prepares eight major monographs on the agricultural resources, production, consumption, trade and institutions of selected countries. Four and one-half scientist man-years are involved in this activity. They are included in the Division total. This research is not included above in the three research areas of the Division.

For AID the Division annually prepares index numbers of production for the less developed countries of the world and renders certain technical and consultative services in support of the technical assistance and training programs. The Division is also involved in a Participating Agency Service Agreement with AID to conduct research on the demand for export products of the less developed countries. The scientists involved in these activities are included in the Division total and the research is included in the three research areas of the Division.

The Division also does research for other agencies of the government for which it is reimbursed.

There is close cooperation between the Foreign Regional Analysis Division and the Foreign Development and Trade Division, and between the Division and the Foreign Agricultural Service to preclude duplication or overlapping of work. The work of the FRAD involves the making of analyses by country or commodity while that of FDTD involves the analysis of a given problem regardless of country or commodity. The work of FRAD involves long-term analyses in greater depth than studies carried out in FAS for current operational purposes.

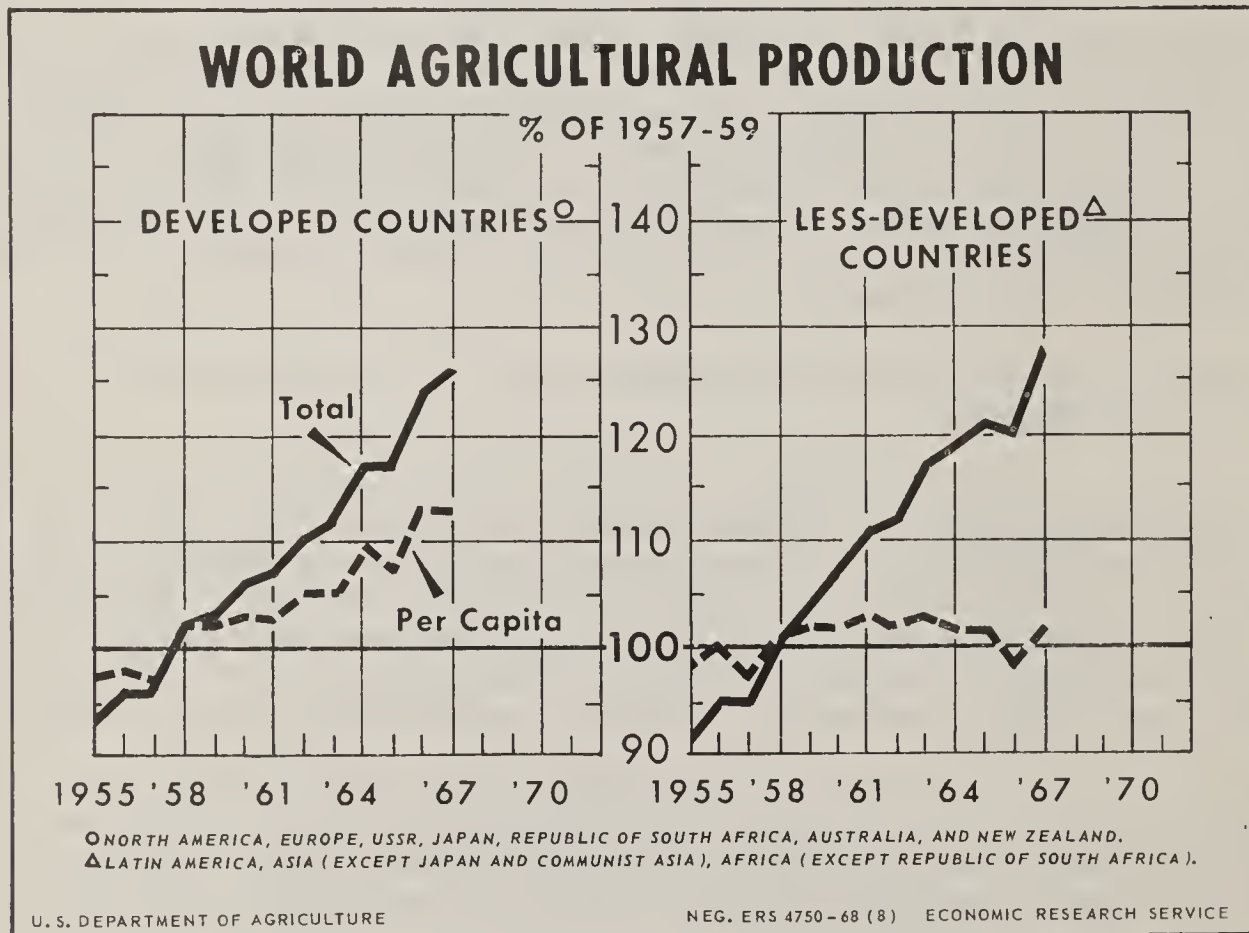
In addition to its own resources, the FRAD utilizes market development funds of Section 104 b(i), Title I, P.L. 480, administered by FAS, to contract with Land-Grant Universities and other economic and marketing organizations to perform research on market potential in countries and regions. Some P.L. 480 funds are advanced by FAS to cover travel abroad in servicing these contracts.

Illustrated highlights of some of the Division's research findings follow:

World agricultural production set another record in 1967. The less developed countries (excluding communist Asia) accounted for most of the increase. Production in these countries rose by 7 percent. Some developed areas failed to gain, but most less developed areas showed improvement. The largest increase was in India, where production rose almost one-fifth.

Largely because of drought in India, per capita production in the less developed countries in 1966 had fallen below the 1957-59 average. The gain in 1967 was sufficient to bring per capita production back to a level slightly below the recent high in 1963. Food production in 1967 increased more than total agricultural production in the less developed countries.

There was considerable success in introducing new grain varieties and increasing fertilizer application in the less developed countries but excellent weather was the decisive factor in the performance in these countries in 1967. The new varieties were not planted on a large enough share of the grain acreage to have had a major impact on production in the less developed countries as a whole. For example, in South and Southeast Asia--where rice production increased about 15 percent in 1967--less than 3 percent of the rice area was planted to new varieties. In this area, weather often causes a 15 to 25 percent year-to-year variation in rice yields.



CURRENT SITUATION AND SHORT-RUN OUTLOOK

USDA Program

Location of Intramural Work	Scientist Man-Years F.Y. 1968		
	Research Problem Area		Total
	601	602	
<u>Africa and Middle East</u>			
Washington, D. C.	3.4	0.5	3.9
<u>Europe and Soviet Union</u>			
Washington, D. C.	8.2	0.4	8.6
<u>Far East</u>			
Washington, D. C.	3.6	0.8	4.4
<u>Western Hemisphere</u>			
Washington, D. C.	5.9	0.7	6.6
<u>World Analysis</u>			
Washington, D. C.	2.2	0.7	2.9
Total	23.3	3.1	26.4

Intramural program is supplemented by extramural support representing (a) 0 SMY's at State Agricultural Experiment Station's, (b) 0 SMY's at other U.S. institutions, and (c) P.L. 480 funds in 0 countries representing 0 U.S. dollars equivalent.

AREA NO. 1 -- CURRENT SITUATION AND SHORT-RUN OUTLOOK

PROBLEM AND OBJECTIVES

Current intelligence on foreign production, consumption, and trade is needed in order that the public may be adequately informed and that public policy-makers may render intelligent judgments and decisions. The problem is to evaluate current foreign developments significant to U.S. agriculture, and to provide U.S. policy-makers, agricultural export interests, and the American public with timely appraisals of these developments.

Objectives of this area include:

- (1) Appraisal of the current food and agricultural situation in foreign countries and the short-run outlook for the demand and supply of farm products;
- (2) Preparation of the annual World Agricultural Situation and the Regional Agricultural Situation Reports;
- (3) Analysis of foreign policies designed to protect agriculture, encourage trade, and support prices and income of agricultural producers;
- (4) Preparation of annual indices of agricultural and food production to measure trends and compare rates of growth;
- (5) Preparation of food balances to assess the size and quality of food supply;
- (6) Compilation and analysis of data on the agricultural economies of foreign countries for use in briefing U.S. officials and other individuals traveling abroad;
- (7) Analysis of foreign countries financial position, trade trends, and economic development (in cooperation with FDT).

USDA PROGRESS

RPA 601 - EXPANSION OF FOREIGN MARKETS FOR U.S. FARM PRODUCTS

- A. World Agricultural Situation (Continuing Project)--The past year was one of record output for world agriculture and, most significantly, a record for the less developed world. Per capita agricultural output in the less developed countries (excluding communist Asia) increased by about 5 to 6 percent in 1967, a recovery to the level of 1964 or slightly above. In particular, most of the developing countries with large populations--India, Pakistan, and Brazil--made substantial gains in the production of grain and other foods. However, there was no measurable improvement in per capita food production in Indonesia.
- B. Agricultural Policies of Foreign Countries
1. Preferential Trade Arrangements and U.S. Agriculture--Since the imposition of variable levies on grain in 1962, the United States has been able to increase its share of EEC grain imports largely because our competitors were short of grain. Although Commonwealth preferences continue to impede certain U.S. agricultural exports to the United Kingdom, increased U.K. self-sufficiency appears to have caused the greater damage to U.S. trade in the U.K. market in recent years. Japan has liberalized its restrictions on imports of many major agricultural products but continues to make extensive use of bilateral trade arrangements, a form of discrimination that is difficult to counter. The less developed countries of the world belong to a wide variety of preferential trade associations but, thus far, it does not appear that the trade of many of these countries has benefited from these associations.
 2. Agricultural Policies in the Western Hemisphere--The study reviewed policies and programs related to agricultural production and trade in Canada and 24 Latin American countries. These reviews indicated increased emphasis upon planning and special Government programs to improve food and export supplies, particularly in Latin America. Also evident was a growing trend toward economic integration and trade cooperation between countries.
 3. Agricultural Policies in Africa and West Asia--This report provides a periodic review of the agricultural policies of the countries of Africa and West Asia. It updates a similar report published in 1964 and focuses largely on describing those policies which have a significant impact on the level or composition of agricultural production and trade of African and West Asian countries and on U.S. agricultural trade. Economic integration among the many countries of the area is not far advanced. But among the several multilateral trade and development associations active in the area, possibly the most influential on agricultural policies

are the Associated Overseas Countries (AOC) of the European Economic Community (EEC) embracing 18 African countries which are provided both protected markets in the EEC and development funds from the EEC, and the British Commonwealth embracing 11 African countries which have preferential treatment on the markets in U.K. and other Commonwealth countries.

4. Agricultural Policies in the Far East and Oceania--Most countries of the Far East have economic development plans and most of these depend upon substantial external assistance. Nearly all countries in the region aim for increased self-sufficiency in the production of foodstuffs. Agricultural policies are kept under continuous review, and interim reports are prepared as needed.
5. Agricultural Policies in Europe and the Soviet Union--Significant changes are being made in the agricultural policies of the countries in Western Europe, particularly in connection with the development of a Common Agricultural Policy in the EEC and the conclusion of the Kennedy Round Negotiations. Also, major changes have been made in the agricultural policies of the Soviet Union and in Eastern Europe in recent years.

C. Situation and Outlook, Western Hemisphere

1. Western Hemisphere Agricultural Situation (continuing project)--Published midyear and annual reviews of the 1967 situation and outlook for 1968. Latin American food production recovered to a record level but Canadian agricultural output was 12 percent below the 1966 record, due to drought. Hemisphere agricultural exports were below the levels of the previous year and larger imports increased pressure upon foreign exchange reserves in many countries. Trade and other problems weakened growth rates, particularly in Canada and Central America.
2. Agricultural Production Indices (continuing project)--Calculated indices of agricultural and food production for AID in the fall, using preliminary data. Prepared final data for calculation of indices by ADP, used for the annual publication. The 1968 publication was expanded to include indices for Canada which were calculated on the same basis as those for Latin American countries.
3. Improvement of Statistical Records (continuing project)--Work progressed in the development of basis statistical records needed for analysis of agricultural and trade developments, preparation of scheduled and special reports and support of service work. Series of data were prepared on area and production of important crops for special ADP analysis of yields and utilization. Data on agricultural trade of countries was analyzed according to principal SITC categories for the period 1955-65.

4. Country and Regional Studies--Brief studies were completed which analyzed the agricultural resources, production, and trade of British Honduras, and Puerto Rico. Similar studies were initiated for Bolivia and Haiti. Work progressed on a special basic report on the agriculture and trade of countries and dependent territories in the Caribbean.

D. Situation and Outlook, Europe and Soviet Union

1. Europe and Soviet Union Agricultural Situation (continuing project)--Agricultural production in Europe and the Soviet Union was at a high level in 1967. Total production in Western Europe was at a record level, 6 percent higher than in 1966 with an excellent grain harvest contributing much to the increase. Agricultural production in the Soviet Union and several East European countries dropped below the 1966 records but held at favorable levels. Prospects for agriculture in Europe and the Soviet Union were generally favorable as of midyear 1968. Grain harvests roughly equal to those in 1967 appeared to be in prospect in Western Europe and the Soviet Union. However, a severe drought in southeastern Europe is adversely affecting crop prospects.
2. Agricultural Production Indices (continuing project)--The annual index developed for Greece indicates that agricultural output rose significantly during 1967.
3. Agriculture in the United States and the Soviet Union--A statistical study that compares the structure, resource allocation, and performance of agriculture in the United States and the Soviet Union in 1966.
4. Agricultural Economies and Trade--These studies describe the agricultural resources, the position of agriculture in the economy, the agricultural situation, agricultural policies, and agricultural trade--including major imports and exports and their significance to the United States--of the countries in Western and Eastern Europe and the Soviet Union. Drafts for these studies were completed on Denmark and Hungary and research work started for studies on Bulgaria, France, Switzerland, and the Soviet Union.

E. Situation and Outlook, Africa and Middle East

1. Africa and West Asia Agricultural Situation (continuing project)--Agricultural production during 1967 was up significantly from the previous year in the Africa and West Asia region. Total agricultural output and food production increased 5.5 percent and 6.2 percent respectively. On a per capita basis, agricultural production was up 3.0 percent and food production 3.7 percent. Although the output of most crops in 1967 was above the previous year's level, the increased output of cereals, especially in South Africa, Turkey and

Iran, was responsible for a substantial part of the increase in agricultural production in the region.

2. Agricultural Production Indices (continuing project)--Indices of agricultural and food production were completed for 39 countries in Africa and West Asia.
3. Improvement of Statistical Data (continuing project)--Work continued to progress in the preparation of country data books containing basic statistical records used in the analysis of agricultural developments and in the preparation of regularly-scheduled reports. The inadequacy of the basic statistics available for the countries of Africa and the Middle East makes this a major undertaking.
4. Agricultural Economies in Brief--These studies are relatively short and are designed to provide timely information on the agricultural resources, production, policy and trade of the country. During the period under review, manuscripts were prepared for Sudan, Ghana, Israel and Somali.
5. Work on a project for the Department of the Army began in September 1967. The project centers around a comprehensive analysis of the overall importance of 7 commodities to the economies of some 82 countries. The Africa and Middle East Branch is responsible for some 26 of these commodity-country analyses. Responsibility for coordinating the total project was also assigned to the Africa and Middle East Branch. As of June 30, work has been completed on the first phase of the study for all 26 commodity-country analyses and was well underway on the second phase for the 15 analyses covered under the current contract.
6. As part of a broader, internal study, a time series on the supply and distribution of grain for selected countries in Africa and West Asia was prepared.
7. Agricultural Trade Tables--Agricultural trade tables are prepared and reproduced in quantities of 50 to 100 copies each year for countries of Africa and the Middle East. These are prepared when official Governmental trade documents become available. Trade data are converted from official country units and presented in units of metric tons and U.S. dollars. The tables are organized according to the Standard International Trade Classification (SITC) and show major countries of origin and destination.

F. Situation and Outlook, Far East and Oceania

1. Far East and Oceania Agricultural Situation (continuing project)
Agricultural production in the Far East increased 11 percent in 1967 over the previous year. Production increased in all countries

except the Republic of Korea and Thailand where crops suffered from dry weather. Good gains in Japan stemmed largely from expansion of the livestock industry. Large increases in Pakistan and India showed some gain over the trend line, but for the most part they represented recovery from shortfalls in the two previous years. Australia showed a decline because of drought.

2. Agricultural Production Indices (continuing project)--Indices of agricultural and food production were calculated for 15 countries from preliminary data early in the fall for AID. In late winter they were recalculated from revised data for our Far East and Oceania Agricultural Data Book.
3. Improvement of Statistical Records (continuing project)--Work progressed in the development of basic statistical records needed for analysis of agricultural developments, preparation of scheduled and special reports, and support of our service work.
4. Fort Detrick Project--Studies were prepared to determine the importance of selected commodities in the economies of selected countries.

RPA 602 - Evaluation of Food Aid Programs

G. Appraisal of Food Supplies in Foreign Countries

1. Statistical Data on Agricultural Production and Trade--Time series data (1950-65 or 67) on acreage and production of major crops and on production of major livestock products for Europe and the Soviet Union were compiled for publication in agricultural data books. Work on the tables for the data book on Eastern Europe and the Soviet Union was largely completed while considerable work remains to be done on the data book for Western Europe. Many of the statistics compiled for these data books have been included in a data bank for use in automatic data processing.
2. Special Analyses of Food Situation North Africa and Middle East
Analytical research on Food Aid which did not result in publications comprised several special purpose, high priority, short deadline projects to determine the current and forecast the coming year's food grain supply and needs in Africa and West Asia, with particular reference to North Africa and the Arab countries. These areas were of prime importance in 1967 because of the Arab-Israeli war. Other Arab countries were not able to supply food grain to help U.A.R. cover its huge deficit. With most of its customary suppliers alienated, U.A.R. found in USSR and East Europe some 2 million tons of grain to cover its emergency and annual needs.

PUBLICATIONS REPORTING RESULTS OF USDA RESEARCH

RPA 601 - Expansion of Foreign Markets for U.S. Farm Products

World

Chrisler, Donald The World Agricultural Situation, Review of 1967 and Outlook for 1968. U.S. Department of Agriculture. Foreign Agriculture Economic Report No. 38, 27 pages, February 20, 1968.

Chrisler, Donald Preferential Trade Arrangements of Foreign Countries. U.S. Department of Agriculture. Foreign Agricultural Economic Report No. 41, 24 pages, March 20, 1968.

Western Hemisphere

Economic Research Service. Western Hemisphere Agricultural Situation-Mid-year Review, ERS-Foreign 198, 11 pp. September 1967.

Economic Research Service. Agricultural Policies in the Western Hemisphere. FAER 36, 55 pp. October 1967.

Coyner, Mary S. The Agriculture and Trade of British Honduras. ERS-Foreign 209, 15 pp. January 1968.

Economic Research Service. Indexes of Agricultural Production for the Western Hemisphere (excluding the United States). ERS-Foreign 44, 37 pp. March 1968.

Economic Research Service. The Western Hemisphere Agricultural Situation Review of 1967 and Outlook for 1968. ERS-Foreign 222, 30 pp. April 1968.

McAlpine, John D. Agricultural Production and Trade of Puerto Rico. ERS-Foreign 227, 27 pp. June 1968.

Woodard, Alyce. U.S.-Western Hemisphere Trade Dips in 1966-67. Foreign Agriculture, pp. 16-17, December 18, 1967.

Ruff, Samuel O. Frontier Development: The Brazilian Example. Foreign Agriculture, pp. 9-10, January 8, 1968.

Buck, Wilbur F. Cuban Agriculture Lagging Despite Shifts in Farm Policy. Foreign Agriculture, pp. 2-4, January 29, 1968.

Woodard, Alyce. U.S.-Western Hemisphere Farm Trade Dips. Foreign Agriculture, pp. 8-10, May 20, 1968.

Europe and Soviet Union

- Europe and Soviet Union Branch. The Europe and Soviet Union Agricultural Situation: Midyear Review. U.S. Department of Agriculture. ERS-Foreign 196, 8 pages, 1967.
- Europe and Soviet Union Branch. The Europe and Soviet Union Agricultural Situation: Review of 1967 and Outlook for 1968. U.S. Department of Agriculture. ERS-Foreign 220, 60 pages, 1968.
- Europe and Soviet Union Branch. Agricultural Policies in Europe and the Soviet Union. U.S. Department of Agriculture. FAER No. 46, 59 pages, 1968.
- Levine, Jerome A. Agriculture in the United States and the Soviet Union: A Statistical Comparison. U.S. Department of Agriculture. ERS-Foreign 229, 12 pages, 1968.
- Walters, Harry E. Oilseeds and Vegetable Oils in the Soviet Union. Proceedings, National Institute of Oilseed Products, Palm Desert, California. 25 pages, 1968.
- Neetz, Roger E. How Eastern Europe is Meeting Farm Development Goals. 2 pages. (Foreign Agriculture, August 23, 1967).
- Friend, Reed E. EEC Expects to Harvest Record Grain Crop. 1 page. (Foreign Agriculture, October 16, 1967).
- Levine, Jerome A. USSR Acts to Improve Meat and Dairy Procurement and Processing. 1 page. (Foreign Agriculture, October 30, 1967).
- Cohen, Marshall H. Finland Passes New Price Act to Stabilize Agricultural Income. 1 page. (Foreign Agriculture, November 6, 1967).
- Pearson, William E. Great Britain Struggles to End Foot-and-Mouth Disease. 2 pages. (Foreign Agriculture, December 18, 1967).
- Bickley, Lynn. Conference Explores Italian-East European Farm Trade Outlook. 1 page. (Foreign Agriculture, December 25, 1967).
- Neetz, Roger E. USSR Reports Modest Rise in Farm Output. 1 page. (Foreign Agriculture, March 4, 1968).
- Neetz, Roger E. Agriculture in Romania Gains Momentum. 1 page. (Foreign Agriculture, March 18, 1968).
- Schoonover, David M. Soviet Livestock Expansion Slows. 2 pages. (Foreign Agriculture, June 17, 1968).

Walters, H. E. With Russian Crush on Cotton seed, Cotton Remains Popular Soviet Crop. 1 page. (Farm Index, June 1968).

Africa and Middle East

Africa and Middle East Branch. The Africa and West Asia Agricultural Situation, Review of 1967 and Outlook for 1968. U.S. Department of Agriculture. ERS-Foreign 221, 72 pages, 1968.

Africa and Middle East Branch. The Africa and West Asia Agricultural Situation, Midyear Review. U.S. Department of Agriculture. ERS-Foreign 199, 7 pages, 1967.

Africa and Middle East Branch. Indices of Agricultural Production in 28 African Countries. U.S. Department of Agriculture, 35 pages, 1967.

Africa and Middle East Branch. Indices of Agricultural Production in 10 Near East Countries. U.S. Department of Agriculture, 15 pages, 1967.

Branham, Margaret A. EEC-African Association Up for Renewal. 4 pages, (Foreign Agriculture, May 27, 1968).

Chambliss, Mary T. Cameroon's Agricultural Economy in Brief. U.S. Department of Agriculture. ERS-Foreign 215, 8 pages, March 1968.

Santmyer, Carolee. Morocco's Agricultural Economy in Brief. U.S. Department of Agriculture. ERS-Foreign 214, 12 pages, March 1968.

Singleton, Carey B. Jr. Uganda's Agriculture in Brief. U.S. Department of Agriculture. ERS-Foreign 210, 14 pages, January 1968.

Skinner, Snider W. Liberia's Agricultural Economy in Brief. U.S. Department of Agriculture. ERS-Foreign 212, 10 pages, April 1968.

Far East

Far East Branch. The Far East and Oceania Agricultural Situation. U.S. Department of Agriculture. ERS-Foreign 223, 30 pages, 1968.

Far East Branch. The Far East and Oceania Agricultural Situation--Midyear Review. U.S. Department of Agriculture. ERS-Foreign 197, 14 pages, September 1967

Far East Branch. Agricultural Policies in the Far East and Oceania. U.S. Department of Agriculture. FAER 40, 38 pages, November 1967.

Far East Branch. Indices of Agricultural Production for East Asia, South Asia, and Oceania. U.S. Department of Agriculture. 37 pages, November 1967.

Far East Branch. The 1968 Agricultural Data Book for the Far East and Oceania. U.S. Department of Agriculture. ERS-Foreign 219, 71 pages, 1968.

Long, Mary E. One Hundred Years of Japanese Agricultural Trade. 4 pages. (Foreign Agriculture, September 25, 1967).

Long, Mary E. New Zealand's Agricultural Export Problems. 2 pages. (Foreign Agriculture, March 4, 1968).

Barry, Clay G. Rubber Sales Finance Malaysia's Imports. 1 page. (Foreign Agriculture, May 13, 1968).

DEMAND FOR AND COMPETITION WITH U.S. AGRICULTURE EXPORTS

USDA Program

Location of Intramural Work	Scientist Man-Years F.Y. 1968		
	Research Problem Area		Total
	601	602	
<u>Africa and Middle East</u>			
Washington, D. C.	1.0		1.0
<u>Europe and Soviet Union</u>			
Washington, D. C.	1.1		1.1
<u>Far East</u>			
Washington, D. C.	1.4		1.4
<u>Western Hemisphere</u>			
Washington, D. C.	1.5		1.5
<u>World Analysis</u>			
Washington, D. C.			
Total	5.0		5.0

Intramural Program is supplemented by extramural support representing (a) 1.0 SMY's at State Agricultural Experiment Stations, (b) .8 SMY's at other U.S. institutions, and (c) P.L. 480 funds in 3 countries representing 15,300 U.S. dollars equivalent.

AREA NO. 2 -- DEMAND FOR AND COMPETITION WITH
U.S. AGRICULTURAL EXPORTS

PROBLEM AND OBJECTIVES

In many foreign markets United States farm products are facing a change in the competition or demand situation that directly affects their sales. There is a growing volume of requests for information on foreign competition and demand arising from political and economic developments abroad. The problem is to provide an appraisal of developments by country and region in agriculture and in the overall economies of foreign countries in order that American farmers, agricultural export interests and governmental agencies may take advantage of opportunities for developing new and maintaining or expanding existing foreign markets for U.S. farm products.

Objectives in this area include analyses of:

- (1) Trends in demand, supply and trade of farm products within our major markets; growth of population and income; financial and trade policies which affect agricultural trade; effects of changes in marketing, consumption, prices, stockpiling and trade patterns on U.S. farm exports.
- (2) Agricultural developments within countries which are major competitors with the United States in world agricultural markets; changing production and trade patterns caused by rising productivity and adjustments in cost-price relationships; market organization and export promotion; and other measures which encourage agricultural production and trade.
- (3) World production of and trade in agricultural commodities. Data are maintained for commodity groups in a program of continuing commodity analysis relating to foreign market demand and world food and fiber needs. Such data also supply the basis for projection work of the Division.
- (4) Agricultural developments in the less developed countries, particularly as they relate to requirements for food.

USDA PROGRESS

RPA 601 - EXPANSION OF FOREIGN MARKETS FOR U.S. FARM PRODUCTS

A. Foreign Competition and Demand, Western Hemisphere

1. Brazil's Position in World Agricultural Trade--This study, published in October 1967 indicates that Brazil remains heavily dependent upon agriculture despite a significant increase in minerals and industrial output. The country's large land area has permitted a continued expansion in per capita agricultural output since World War II. The relative importance of coffee and cocoa exports has declined in recent years and Brazil is providing growing competition in world markets for cotton, corn, rice, oilseeds, and livestock products. However, a growing population, urbanization, and rising income levels are increasing demand for imported food products, particularly wheat.
2. Agricultural Production and Trade of Ecuador--Analysis in this study, published in June 1968 indicated growth in agriculture and exports, particularly of bananas and other tropical products, contributed to a real per capita economic growth rate estimated near 1.5 percent from 1955 to 1965. Demand for food products have grown steadily and resulted in a steady rise in imports, particularly of wheat and fats and oils from the United States.
3. Competitive Aspects of Argentine Agriculture--Final revisions on this comprehensive study were completed during the report period and final camera copy was submitted for publication in May 1968. In recent years, Argentina has increased emphasis upon agriculture by removing special price and trade restrictions and by improving availability of credit and other incentives. Currency devaluations also contributed to a rising trend in production in the 1960's and permitted a significant recovery in the country's position as a major world supplier of grains and livestock products. It is expected that Argentina will continue to provide growing competition with U.S. agriculture exports, particularly in Latin American markets.
4. Mexican Agriculture - Its Competitive Position--Work progressed on this study, initiated in 1964, after delay due to other priority work and problems with basic data. The revised study will highlight Mexico's strong progress in agriculture during the past decade and growth as a competitor in world markets for cotton, grains, and fruits and vegetables.
5. Competitive Aspects of Canadian Agriculture--Work on this study, initiated in 1966, included the completion of statistical data and the draft of a significant portion of the text. The study will emphasize Canadian agriculture in relation to its position as a competitor in the United States, Canada, and other world markets.

6. Agricultural Production and Trade of Colombia--This project was initiated in May 1968. Work has progressed in collection and preliminary evaluation of data related to production and trade of agricultural products.

B. Foreign Competition and Demand, Europe and Soviet Union

1. Agriculture in the European Economic Community, An Annotated Bibliography, 1958-1966. This publication is based on a survey of European agricultural economic studies in the EEC contracted by USDA to Oxford University. It lists studies concerned with: methodology, statistics, and projections; international trade; the agricultural situation; and various commodities.
2. A contract with Stanford Food Research Institute provides for the supplying of information on trends in grain production and utilization in France and West Germany and the appraisal of the effects of Common Market agricultural policies on future grain production and trade in these countries. Publications under this contract are French and EEC Grain Policies and Their Price Effects, 1920-1970 and The West German Grain Economy and the Common Market: Policies, Prices, and Production, 1925-1975. An additional publication on France, incorporating the above publication and a short study on "The Changing Structure of French Agriculture and the Outlook for Grain Production in the 1970's," will be forthcoming.
3. A contract is in effect with the Giannini Foundation, University of California for studying production and trade policies for fruits and vegetables in Italy. The study will examine the influence of the Common Market on demand for fruits and vegetables and the resulting impact upon the market for California fruits and vegetables. This project is scheduled for completion in FY 1969.
4. Agricultural Market Potential in Eastern Europe--This project analyzes data on agricultural production, consumption, and trade to assess market opportunities in this area. Trade data has been analyzed for trends and shifts by commodity, but the emphasis on U.S. trade has been on aggregative dollar sales rather than on specific commodities. Policy decisions affecting U.S. trade with Eastern Europe have been reviewed.
5. Past Developments and Near-Term Prospects for the Production, Consumption, and Trade of Coarse Grains. This study surveys probable developments in the production and trade of feed grains by 1970/71 in selected feed grain exporting and importing nations or regions. Comprehensive information on world feed grains production and trade is also presented.

6. Farm Policies in the United Kingdom Which Conflict with a More Liberal Trade Policy. This paper (unpublished) reviews past and present agricultural policies in the United Kingdom and isolates features which conflict with a more liberal trade policy in grains and dairy products. Among policies restricting grain trade are rising guaranteed prices for domestic production and limitations on access to the U.K. market. Trade in dairy products is hindered by such policies as imposing duties on selected dairy imports from non-Commonwealth countries and individual country quotas on butter imports.
7. The Food Industry in Europe and Japan. This paper (unpublished) explores the characteristics of food production and distribution in Western Europe and Japan, including technological advances, marketing aspects, and extent of national government support of food production and distribution.
8. Implications of Common Market Membership for British Agriculture. This paper examines some of the major implications of EEC membership for British agriculture, the cost of food, and the United Kingdom's balance of payments.
9. A contract with Cornell University provides for the preparation of livestock-feed balances for the United Kingdom, Netherlands, West Germany, Italy, France, Belgium, and Denmark. This project will bring together annual feed requirements, domestic feed production, and feed imports for use in forecasting probable feed imports. Reports on the United Kingdom and the Netherlands have been published and drafts on West Germany and Denmark completed. Reports on France, Belgium, and Italy are in progress.
10. A contract in effect with the Institut für Landwirtschaftliche Marktlehre, Hohenheim, Federal Republic of Germany, provides for development of a methodology for forecasting livestock numbers on a year-to-year basis for cattle, swine, poultry, and minor livestock species in the Federal Republic of Germany, the United Kingdom, the Netherlands, and Denmark for use in forecasting animal feed requirements.
11. A contract in effect with the IFO-Institut für Wirtschaftsforschung in Munich provides for a comprehensive survey of the structure and functioning of marketing systems for grains, feedstuffs, beef and pork, poultry, and fruits and vegetables in West Germany, France, Italy, the Netherlands, Belgium-Luxembourg, United Kingdom, Denmark, Norway, Portugal, Sweden, Switzerland, and Austria.

C. Foreign Competition and Demand, Africa and Middle East

1. Agricultural Development and Expansion in the Nile Basin--This study defines the major agricultural development projects within the Nile Basin and determines the magnitude of increased agricultural production likely to result from these projects. The competitive aspect of this increased production on U.S. farm exports is assessed. Reviews had been completed and the manuscript was being edited as of June 30.
2. East Africa's Agricultural Development and Trade--This study will examine the major agricultural development plans, programs and projects within the East Africa region and to ascertain the magnitude of increased agricultural production likely to result from these development projects. The competitive aspects of this increased production on United States agricultural exports will be assessed. An analysis and appraisal of the new East African Community (EAC) and its impact on domestic, regional, and international trade will be made.
3. Planning the Economic Development of Tanzania, 1970-1980--This study examines the problems of changing Tanzania's subsistence agriculture into a market economy. Tanzania needs more agricultural production both for cash markets and domestic consumption. Population is growing about 3 percent per year and urbanization is increasing. Rapid increases in the domestic demand for agricultural products, especially wheat and corn are expected in the near future. The first draft of this study has been completed.
4. Location and Evaluation of Research on the Agricultural Economies of the French, English, and Portuguese Speaking Countries of Africa--The first two progress reports were received. Approximately 850 pertinent research studies have been located. These studies were being evaluated and briefly summarized. Extended summaries (2 to 5 pages) are to be prepared for 140 of these studies. Because more studies were located than anticipated, the contract was amended to provide for an extension of time and additional funds.
5. Development of Methodology for Analyzing the Effect of African Urbanization on Agricultural Imports--The contract for this research study was signed in June 1968 with the University of Edinburgh, Edinburgh, Scotland.
6. The Dimensions of Africa's Food Problem, with Special Attention to the Effects of Urbanization--The study will focus on food production, consumption, imports, marketing, urbanization and economic growth, food and agricultural policies, foreign aid and a general evaluation of the African food problems. The contract for this study was signed in June 1968 with Dr. Heinz C. Krause.

7. Northern Africa: An Agricultural Review--This study provides a review of the area, production, trade and domestic availability of selected food crops, 1955 through 1966, for the countries of Northern Africa.

D. Foreign Competition and Demand, Far East and Oceania

1. Agriculture in Australia--A Major Competitor with the United States in Far East Markets--Manuscript was completed and cleared in the report period.

Australia and the United States are the foremost suppliers of farm products to the markets of the Far East. In Australia, there is increasing emphasis on trade with the Asian countries, and both government and private interests are actively engaged in trade promotion in these countries. During the past few years, the share of Australia's agricultural exports going to the Far East, United States, and Latin America rose while that going to Europe fell. The Asian countries are a growing market for agricultural products. It is likely that Australia's exports to this region will expand in volume and that the region will continue to take an increasing share of Australia's farm exports.

The Australian Government has an active and successful policy to encourage the expansion of agriculture. Vast areas have been cleared and improved, and great irrigation systems have been built. Australia's economy depends to a considerable degree on exports, and agricultural exports have shown an almost steady increase.

PUBLICATIONS REPORTING RESULTS OF RESEARCH

RPA 601 - EXPANSION OF FOREIGN MARKETS FOR U.S. FARM PRODUCTS

Western Hemisphere

Economic Research Service. Brazil's Position in World Agricultural Trade. ERS-Foreign 190, 133 pp. October 1967.

Magleby, Richard S. Restrictions on Intra-North American Trade. Mineo, 25 pp. November 1967.

Leiserson, Etty. Agricultural Production and Trade of Ecuador. ERS-Foreign 218, 50 pp. June 1968

Magleby, Richard S. Latin American Countries Look Forward to Economic Integration. Foreign Agriculture, pp. 12 October 16, 1967.

Europe and Soviet Union

Fransworth, Helen C. and Friedmann, Karen J., French and EEC Grain Policies and Their Price Effect, 1920-1970. 160 pages. Food Research Institute, Stanford University, Stanford, California. 1967.

Weightman, Paul W. H. Concentrated Feedingstuffs for Livestock in the United Kingdom. 65 pages. A. E. Res. 225. Department of Agricultural Economics, Cornell University, Ithaca, N.Y. 1967.

Weightman, Paul W. H. Concentrated Feedingstuffs for Livestock in the Netherlands. 57 pages. A. E. Res. 239. Department of Agricultural Economics, Cornell University, Ithaca, N.Y. 1968.

Hedges, Brian D. and Friend, Reed E. Agriculture in the European Economic Community: An Annotated Bibliography, 1958-66. U.S. Department of Agriculture. ERS-Foreign 213, 77 pages, 1968.

Pearson, William E. and Hedges, Brian D. Implications of Common Market Membership for British Agriculture. U.S. Department of Agriculture. ERS-Foreign 211, 10 pages, 1968.

Lopes, James. Spain to Remain a Steady Market for U.S. Farm Products. 1 page. (Foreign Agriculture, October 23, 1967).

Friend, Reed E. and Shepherd, Robert E. EEC Sets Higher Farm Commodity Prices. 2 pages. (Foreign Agriculture, January 15, 1968).

Butell, G. Robert EEC Agricultural Fund Runs Into Trouble. 1 page. (Foreign Agriculture, January 17, 1968).

Tsu, Sheldon K. and Friend, Reed E. U.S. Farm Trade Prospects in the EEC. 2 pages. (Foreign Agriculture, June 17, 1968).

Africa and Middle East

Moe, Lyle E. Turkish Dilemma, to Till or Trade. 2 pages. (Farm Index, August 1967).

Singleton, Carey B. Jr. Kenya, Uganda, and Tanzania Establish "East African Community." 1 page. (Foreign Agriculture, December 4, 1967).

Warren, Cline J. Nations on the Nile - A New Look on an Old River. 2 pages. (Farm Index, February 1968).

LONG-RANGE OUTLOOK FOR U.S. AGRICULTURAL EXPORTS

USDA Programs

Location of Intermural Work	Scientist Man-Years F.Y. 1968		
	Research Problem Area		Total
	601	602	
<u>Africa and Middle East</u>			
Washington, D. C.	2.2	0.2	2.4
<u>Europe and Soviet Union</u>			
Washington, D. C.	2.8	0.2	3.0
<u>Far East</u>			
Washington, D. C.	2.5	0.2	2.7
<u>Western Hemisphere</u>			
Washington, D. C.	2.9	0.2	3.1
<u>World Analysis</u>			
Washington, D.C.	2.1	0.2	2.3
Total	12.5	1.0	13.5

Intramural Program is supplemented by extramural support representing (a) 0 SMY's at State Agricultural Experiment Stations, (b) 3.3 SMY's at other U.S. institutions and (c) P.L. 480 funds in 20 countries representing 294,872 U.S. dollar equivalent.

AREA NO. 3 -- LONG-RANGE OUTLOOK FOR U.S. AGRICULTURAL EXPORTS

PROBLEM

Knowledge of supply and demand trends and import requirements in foreign countries and the location of new opportunities for U.S. farm exports is essential if the United States is to develop its farm exports to the fullest extent consistent with the economic utilization of U.S. agricultural resources. The United States must also harness its productive capacity to meet world food needs efficiently without recurring cyclical shortages and surpluses.

The objectives in this area include:

- (1) Publishing every five years a comprehensive summary of world food needs, by countries and major subregions of the world. The last detailed projections for 1970 were published in 1964. With world food needs a continuing and changing problem, periodic analyses are made updating parts of the comprehensive study for use in special studies for administrators, other agencies, task forces and other requestors. This also involves making preliminary estimates to 1975 and 1980.
- (2) Make annual projections of exports of leading U.S. agricultural commodities by quantity and value.
- (3) Contracting with competent research organizations for comprehensive country studies to analyze and project to 1975, and 1980 the import demand and export availability of agricultural products which are important U.S. export commodities. The Division plans, supervises and reviews the studies at different stages of development. The results of these country studies are integrated into our regular projections work for major regions and for the world.
- (4) Projecting immediate and long-term world demand prospects for products exported by less developed countries. This ERS research for AID is being done in cooperation with the Foreign Development and Trade Division.

PROGRESS IN USDA AND FOREIGN RESEARCH CONTRACTORS' PROGRAMS

RPA 602 - EVALUATION OF FOOD AID PROGRAMS

World Food Needs by Country and Region

Continuing analyses have been made concerning the ability of the world to produce enough food to sustain the rapid growth in population and to supply a satisfactory level of consumption in the developing world. Special attention was given to the prospective food supply and needs in the developing countries. The emphasis in these analyses has been on grain since most of man's food comes, either directly or indirectly, from grain. Findings during the year further confirmed those reported in the previous reporting period that the world would have ample grain output capacity through 1980 and that the productive capacity in the developed countries could easily meet the needs of the less developed countries even if the developing world fails to increase their growth rates in production. These findings were widely disseminated and were timely and effective to offset the undue pessimism generated by two years of drought in India to the effect that the world food situation was deteriorating. In particular, these findings were helpful in providing a basis for determining the level of exports needed from the U.S. at a time when considerable pressures were being brought to unleash U.S. productive capacity to feed the world. A record world crop of grains, in 1967, including a record crop in India for the 1967-68 crop reaffirmed that progress in man's war on hunger was taking place. In addition, the technical developments needed to provide ample output capacity through 1980 which were implicit in the projections of the previous reporting period were beginning to be observable.

During the current reporting period, a staff member was part of an AID mission to study the grain production potential of India to 1970-71. The Economic Research Service published the results of this research concerning the requirements for increasing India's food grain production by 5 percent yearly from 1967-68 to 1970-71. This report presents a model for projecting output by measuring the marginal product resulting from increases in farm inputs with response ratios based on tests and actual field cuts. The study concluded that the 5 percent growth rate was feasible but that it would require a substantial acceleration of the input base-fertilizer, pesticides, and improved seeds.

RPA 601 - EXPANSION OF FOREIGN MARKETS FOR U.S. FARM PRODUCTS

A. Projection of Exports of U.S. Farm Commodities

Analyses of long-run prospects for U.S. agricultural exports consisted of relating U.S. exports of wheat and feed grains to the commercial import demand in the developed countries, the export supplies of exporting countries, the food situation in the developing countries and the growth potential of new commercial markets. Separate studies of the supply,

trade and demand prospects over the next five years for the major commercial markets such as Japan, EEC, and U.K. were completed. These were integrated with special studies made of import requirements of aid-recipient countries into a world framework to measure the total impact on U.S. exports. These analyses indicate there will be a substantial increase in demand for grain in the importing countries as incomes and affluency continue to rise. But the analyses also show that the capacity and willingness to produce exceeds the import demand at prevailing prices, thus making it difficult to maintain stable world grain prices. The study further showed that the United States would have difficulty in maintaining its share of the world market if it were the only nation balancing future world grain supplies in line with effective world demand. It concluded that a high level of international cooperation will be needed to achieve equitable sharing of both the responsibilities and gains to be expected not only from the commercial market but also in assuring effective growth in the developing countries.

B. Long-term Projections of Foreign Supply of and Demand for Agricultural Products by Country, Region, and for the World

Utilizing Section 104 b (1), Title I, P.L. 480 funds, basic country studies are carried out under contract by research organizations with adequate facilities and familiarity with the problems to be studied. The contractor is usually an organization in the country being studied. Work included development of plans of work in cooperation with the contractor for studies initiated during the current reporting period. These plans aid in keeping the various country studies in line with the general framework previously developed.

Consultations on research and technical problems were held from time to time with research workers in the contracting agency. Required progress reports were reviewed and analyzed. Considerable time was spent in critical review and assistance in preparation of final drafts of these country studies. Cost of the studies varies widely, depending on the availability and reliability of data and the extent to which the data can be utilized for time series, cross-sectional and other projectional analysis. Time involved with studies varies from 18 to 36 months. Considerable time was also spent in evaluating these studies and in preparing summaries of them. This is reported under each separate study below.

As part of our continuing analysis of the supply, trade and demand prospects, a study was made for administrative use which projected production, consumption, and import requirements of wheat, rice and coarse grains of major aid-recipient countries for the next five years which was helpful in evaluating U.S. exports under PL-480 program. Results obtained from our contract studies on individual countries were helpful in making these projections. The projected import requirements in this study reflected much improved production prospects in India and Pakistan, recognizing the improvements in technology that had taken place or will take place in the next decade. Because of this, import requirements

of India and Pakistan were expected to decline in the next few years but that import requirements in the other aid-recipient countries would continue to show a steady increase. The India and Pakistan projections assume increased capital flow into the agricultural sector, particularly the food component. Specifically, it means a high level of effective fertilizer use with sufficient credit and high enough producer prices to provide an incentive to producers and to make fertilizer use profitable.

1. Studies Published: 7/1/67 to 6/30/68

- a. Belgium: Long-Term Development of Supply and Demand for Agricultural Products in Belgium, 1970-1975. The contractor was Studiecentrum Voor Economisch en Sociaal Onderzoek, Antwerp, Belgium; the Project Director was Professor Dr. P. H. Virenque.

Gross National Product is expected to grow at a rate of 3.5 percent between 1959 and 1970 and 3.8 percent between 1970 and 1975. Population is expected to grow at an annual rate of 0.7 percent. The annual increase of private consumption of foods and beverages from 1959 to 1975 is expected to be 2.8 percent. The annual rate of growth of agricultural production is projected to slacken during 1959-75 to 2 percent, as compared to the rate of 3.1 percent from 1959 to 1963. As a result, agriculture's share of GNP is expected to decline from 6.5 percent in 1959 to 5.0 percent in 1970 and 4.3 percent in 1975. The growth of agricultural imports is also expected to diminish from an annual rate of 5.1 percent during 1959-63 to 2.8 percent during 1963-70 and then to increase to 3.4 percent during 1970-75.

- b. France: Production and Uses of Selected Farm Products in France, Projections to 1970 and 1975. The contractor was Centre de Recherches et de Documentation sur la Consommation, Paris, France; the Project Director was Dr. G. Rottier. Though French agriculture has changed markedly since World War II with technological developments, comparable changes are foreseen for the future. In viewing French agriculture in 1975, the study projects continuing advances in production--in some cases, burdensome surpluses will result. Milk, already a surplus commodity, shows no halt in its upward trend in production. Output of soft wheat is expected to climb beyond market demand. Imports of durum wheat and vegetable oil will continue in upward trend. Also projected in the study is self-sufficiency in pork, eggs, and poultry; near-to-permanent status of a beef exporter; and rapid growth of the fruit industry.

- c. Netherlands: Supply and Demand, Imports and Exports of Selected Agricultural Products in the Netherlands, Forecast for 1970 and 1975. The contractor was Landbouw-Economisch Instituut, The Hague, Netherlands; the Project Director was Dr. A. Maris. During the period 1965-75, population, GNP, and private consumption are projected to increase 16, 30, and 49 percent, respectively. Projections for 1975 indicate a decline in wheat imports; an increase in feed grain imports; an increase in the export availability of potatoes; a rapid expansion of rapeseed production and export; a worsening of the surplus supply problem for milk products; increased export supplies of pork and poultry meat; a sharp reduction in egg exports; and an increase in imports of oils and fats, oilcakes, and oilseeds.
- d. West Germany: Long-term Development of Demand and Supply for Agricultural Products in the Federal Republic of Germany. The contractor was IFO-Institut für Wirtschaftsforschung, Munich, Germany; the Project Director was Dr. Helmut Schmidt. Germany's GNP is projected to increase 4.6 percent annually from 1965 to 1975, and total private consumption to increase 5.7 percent per year. This study projects very little improvement in self-sufficiency for most commodities studied; in a number of cases a decline is indicated. As incomes rise, consumers are expected to demand more protein foods, fruits, and vegetables, while demand for starchy foods will decline. Demand for grain, oilcake, and tobacco is also expected to increase. To meet the expected demand for animal products in 1975 from domestic production would require 8-9 million tons of imported grain--almost three times the 1960/61-1962/63 imports--and imports of oilcake and high-protein concentrates would be double those in 1960/61-1962/63. The demand for tobacco--one of the major U.S. exports to Germany--are projected to rise to 190,000 tons in 1975, compared with 150,000 tons in 1965.
- e. South Africa: Long-term Projections of the Supply of and Demand for Agricultural Products. The contractor was Arthur D. Little, Inc., Cambridge, Massachusetts, Research Director, Mr. Maurice Sorenson.

The population of South Africa is estimated to increase at an annual rate of 2.3 percent and the national income by 4.5 percent. South Africa's import needs of wheat, rice, and cotton are expected to increase steadily through 1975. On the other hand, the country's export of corn, deciduous fruits, citrus fruits, and mohair, all of which compete with similar U.S. products for markets, are projected to increase substantially. Exports of pineapples and peanuts through 1975 are projected to remain near static. However, the study pointed out that large parts of the country have infertile soils and are subject to droughts. Consequently, it is very difficult to keep the agriculture production at the same rate as in the past. This would limit an orderly marketing condition and to

establish the Republic of South Africa as a reliable long-term supplier or customer of specific farm products on the world market.

- f. Pakistan: Long-term Projections of the supply of and Demand for Agricultural Products. The contractor is the Social Sciences Research Center, Lahore. The Research Director is Dr. S.A. Abbas, Reader in Economics, University of the Punjab, Lahore, Pakistan.

In the final report the GNP of Pakistan is projected to grow at an annual compound rate of 7.9 percent from 1965 to 1985. With an assumed population growth rate of 3.7 percent, GNP per capita will increase at the approximate annual rate of 4.1 percent and rise from \$76 in 1965 to \$170 in 1985. The growth rate in the agricultural sector is projected to be only 3.9 percent which will necessitate an upward trend in the import of many food commodities, especially rice, wheat, and dairy products. Exports are expected to increase for fish, cotton, and jute.

- g. Brazil: Sent to Israel for publication.

2. Studies Completed: 7/1/67 to 6/30/68

- a. Central America: Long-term Projections of Supply and Demand for Agricultural Products in Central America. The contract with the Battelle Memorial Institute of Columbus, Ohio was signed November 19, 1965. Dr. Odin Wiheling, Jr., Head of the Agricultural and Food Economics Division, Department of Economics and Information Research was the study director. A final study report was submitted on February 7, 1968. It was approved and the contract terminated, effective June 10, 1968. The report is being prepared for publication.

The report assumed a continuation of economic development trends for the region near recent levels with gross national product to rise through 1980 at an annual rate slightly exceeding 5 percent. The growth rate implies some continued industrial and trade development under the Central American Common Market but the region is expected to continue strong dependence upon exports of cotton, coffee, bananas, and sugar. Increased demand was reflected in larger projected imports of cereals particularly wheat and tobacco, dairy products, and eggs. The region is expected to remain largely self-sufficient in rice, pulses, tubers, and meat.

- b. Colombia: Long-term Projections of Supply and Demand for Agricultural Products in Colombia. The study was contracted with the Universidad de Las Andes on November 28, 1960. Dr. Eduardo Weisner D., Dean of the Economic Department was in charge. Monographs on land use, policies and projections of production for specified commodities prepared under sub-contract were submitted in 1962. A study report was submitted in November 1964 but returned to the contractor for extensive revisions. The report was resubmitted, providing Demand Projections for Agricultural Products in November 1966. The possibility of updating the 1962 projections of production and reconciling with the demand study was later reviewed. Considering contractor's inability to finalize, an amendment was effected to terminate the contract, effective February 22, 1968.
- c. Peru: Long-term Projections of the Supply and Demand for Agricultural Products. The contract was with the Universidad Agraria, Lima, Peru. Sr. Ing. Eduardo Watson C. was overall study director and Dr. Hylke Van de Wetering of the Iowa State University Mission to Peru served as technical advisor to the study group. The study was contracted on December 1, 1962. A preliminary draft report of the study was submitted by the contractor on March 28, 1968. The revised final draft report was approved for contract termination June 20, 1968 and is being prepared for publication.

The study projects an annual population growth rate of 2.6 percent through 1980. Gross national income is forecast to increase 3.6 percent annually from 1965 to 1970 and at a rate of 5.6 percent from 1970 to 1980. Based upon projections of population, income and production, Peru is expected to provide an expanding import market for wheat, fresh fruit, tobacco, cocoa beans, fats and oils, meat and dairy products. Traditional exports, including cotton and sugar are expected to continue some expansion.

3. Studies in Progress

- a. Denmark: Long-Term Projections of the Supply of and Demand for Agricultural Products. Contractor, Institute of Economics, University of Aarhus, Aarhus, Denmark; Director, J. H. Gelting; Project Director, Professor Vibe-Pedersen. The completion date of the report was extended from December 31, 1967 to December 31, 1968. The "Demand Section" of the report was received and reviewed. The "Supply and Trade Section" remains to be completed.
- b. European Economic Community: An Aggregation of Agricultural Supply and Demand Projections for the EEC Country Studies: An Analysis with a View of the Finalization of the Common Agricultural Policy. Contractor, IFO-Institut für

Wirtschaftsforschung, Munich, Germany; Director, Dr. Gunter Zempel; Project Director, Dr. Helmut Schmidt.

The contract was signed on June 19, 1967 and is scheduled for completion by September 30, 1968. Methods were formulated to arrive at comparable data taking EEC price policy into account in order to aggregate the projections of supply and demand. The final report is near completion.

- c. Iran: Long-term Projections of the Supply of and Demand for Selected Agricultural Products. The contract for a period of 2 years, was signed February 1, 1967, with Economic Research Institute, Utah State University. Dr. Allen LeBaron is the project leader. The necessary data has been collected and computerized. A table of input-output was obtained from which an output multiplier, import and export requirement were worked out. Progress reports have been received. The first draft is to be completed March 1969.
- d. Nigeria: Long-term Projections of Supply of and Demand for Agricultural Products. This study will be an updating revision and extension of an earlier study. The contractor is the Department of Political Economy, University of Edinburgh, Scotland, Research Director, Ian G. Stewart. The final report was near completion. However, to more accurately assess the effect of the civil disorder within Nigeria, the contractor has requested an extension of time.
- e. United Arab Republic (Egypt): Long-term Projections of Supply of and Demand for Agricultural Products. The contract was signed with the Ministry of Agriculture, United Arab Republic. The final report was nearing completion before the Middle East conflict. There has been no progress during reporting period. This project was indefinitely extended in mid-1967 because of the UAR's break in diplomatic relations with the United States. However, an indication of interest in completing this project during FY 1969 has been received from UAR officials.
- f. Hong Kong: Long-term Projections of the Supply of and Demand for Agricultural Products. The contractor is the Chinese University, Kowloon, Hong Kong. The Project Director is Dr. Choh-Ming Li. The final report has been received and is being reviewed for approval and final payment.
- g. India: Updating and Supplementing the Long-term Projection Study Previously Completed. The contractor is the National Council of Applied Economic Research (NCAER), New Delhi, India. The Project Director is Dr. J. Satyanarayana, NCAER. The contract was signed April 18, 1967. Its terminal date is

December 1969. Progress reports indicate that the study is progressing satisfactorily.

- h. Taiwan: Long-term Projection of the Import Requirements and Export Potential of Specified Agricultural Products. The contractor is the Research Institute of Rural Socio-Economics, National Taiwan University, Taipei, Taiwan. The Project Director is Te Tsui Chang, Professor and Director, Research Institute of Rural Socio-Economics, National Taiwan University, Taipei, Taiwan. The contract was signed March 31, 1967. Its terminal date is March 1969. The study is progressing satisfactorily.
- i. South Korea: An analysis of the 1964 Country-wide Household Food Consumption Surveys Data for the Republic of Korea. The contractor is the Yonsei University, Seoul, Korea. Drs. Ki Hyuk Pak and Kee Chun Han are the Co-Leaders for this study. The final report is received and is being reviewed for approval and final payment.
- j. Argentina: Long-term Projections of Supply and Demand for Agricultural Products. The contract was signed on April 18, 1966 with the Instituto Nacional de Tecnologia Agropecuario (INTA), Buenos Aires. Dr. Wylían Rolando Otrera is the study director. Initial work on the study was delayed by change in Government and unanticipated difficulties. Contractor has submitted three required progress reports and on March 11, 1968 requested an extension of the termination date to January 31, 1969.
- k. Brazil: Food Consumption Patterns. The study was established by amendment to the contract with the Getulio Vargas Foundation for Long-term Projections of Supply and Demand for Agricultural Products which were completed as of January 31, 1968. The amendment was signed on March 29, 1968 and a report is to be completed by October 31, 1968. The study is under direction of Dr. Julian M. Chacel, Head of the Institute of Economics for the Foundation. Work is estimated nearly three-fourths completed.
- l. Chile: Long-term Projections of Supply and Demand for Agricultural Products. The Contractor is the Facultad de Ciencias Economicas y Sociales de la Universidad Catholica de Chile, Santiago. Rolf Luders of the Centro de Investigaciones Economica of the Facultad is in charge of the study. The contract was signed on May 9, 1962. Major sections of the report have been revised and submitted and are under review.

4. Studies for which Implications for U.S. Agriculture have been Analyzed

- a. Mexico: Projections to 1975 indicate a modest rise in traditional agricultural exports including cotton and coffee with more significant gains indicated for wheat, rice and beans. The study indicates that population and income growth may be reflected in future recovery in demand for U.S. agricultural products, including some meat and dairy products, breeding cattle, fats and oils, cereal products, and fruits.
- b. Australia: From the standpoint of implications for U.S. exports in world markets, the most important findings of the study relate to grains, fruits, dairy products, tallow, hides and skins, cotton and tobacco. Provided that the world price of wheat is maintained at a satisfactory level and normal moisture conditions prevail, it is possible for Australia to reach the projected 1975 wheat export level by 1970, providing keen competition for U.S. wheat exports. Although not directly maintained in the report, recent emphasis upon the production and export of grain sorghum and corn could lead to significant competition with U.S. exports, especially to Japan. Emphasis upon increased production and export of dried sultanas (grapes) will be particularly competitive with U.S. exports. Exports of canned deciduous fruits are expected to increase 35 percent from 1965 through 1975. Other canned fruit exports are expected to increase 2.8 times by 1980. While exports of lamb are projected to cease by 1970, steady increases are indicated for the exports of beef and veal. Sizeable poultry exports are ruled out due to high production costs. Exports of tallow are expected to increase at a moderate rate, directly correlated with the production increase of meat. Exports of hides and skins are shown to decrease slightly. The import requirement for both cotton and tobacco is not expected to increase significantly above current levels.
- c. Pakistan: The study indicates that the net imports of food grains by 1985 may reach 11 million metric tons. Imports of a number of other farm products including meat, powdered milk, butter, and sugar are expected to reach significant levels. Imports of vegetable oils and tallow are likely to continue their rapid growth. Implications for exports of agricultural commodities from the United States to Pakistan are more striking for 1980 and beyond. Pakistan may well offer a potential market for up to \$500 million worth of American agricultural commodities during some years between 1975 and 1985. Also, exports of fertilizer and insecticides by the United States to Pakistan may increase sharply in the next few years.

- d. Turkey: Projections to 1975 indicates that Turkey will do better in production tobacco, cotton, fruit, nuts, tea, and sugar, however, the future production of wheat, feed grains, meat, and vegetable oils will probably be inadequate to meet future demands. The U.S. is expected to supply 50 percent of Turkey's future wheat needs. Turkey has been a minor exporter of meat and feed grains but it is projected to become an importer. The U.S. is not expected to become an important supplier of this market; although, the U.S. is expected to be an important supplier of feed grains in 1970 and 1975.

Cotton has become the major export, replacing the former leader, tobacco. Turkey leads the world in the export of oriental tobacco. Only a moderate increase in output is projected because of the limited specific oriental tobacco production area. Fruit and nut products will likely offer the greatest opportunity for Turkish agriculture; both for the domestic and foreign market. Turkey has moved from an importer to an exporter for sugar and tea.

C. Demand Prospects for Exports of Less Developed Countries

A world trade and demand framework for making projections to 1980 for the export demand of selected agricultural commodities of the developing world has been formulated. The initial framework is concerned with wheat, rice, and coarse grains but has been developed so that it will be adaptable to other commodities. It is being translated into a computer program which will be used for making commodity projections of export demand under several alternatives with regard to population, income, and related conditions. The results obtained from this model will be used to evaluate the potential export earnings from selected agricultural products of the less developed countries under alternative trade policies for given levels of population, income, and other factors affecting demand. The Foreign Trade and Development Division has cooperated in the development of the model.

Work on demand analysis of wheat, rice, and cotton, is well under way with emphasis on development of estimates of the parameters for the projections model. These estimates of price and income elasticities and other factors are being developed from previous studies or from special statistical analyses where previous work is inadequate. In this connection, we are finding our contract studies on long-term projections of supply and demand cited above useful. In some important areas such as price effects, little or no significant work is available. These effects are being explored because price effects as well as institutional constraints are major factors affecting future export earnings of the LDC's.

Considerable time has been spent on development of production, price and utilization data, as well as other economic series needed for the special statistical analyses and for the base of the projections model. The data and projections to 1980 developed on population, GNP and consumer expenditures have been prepared for limited distribution. In addition to the

historical series on this data, this statistical compendium includes a description of methodological aspects of the data. Besides being vital to the individual commodity analysis in this study, this compendium should prove useful to aid missions, research workers, and policy makers concerned with program development and evaluations.

The Division also contributed substantial effort in helping complete the work on the trade flow matrices which is reported in detail by the Foreign Development and Trade Division.

PUBLICATIONS REPORTING RESULTS OF U.S.D.A. AND FOREIGN RESEARCH CONTRACTORS

RPA 601 - EXPANSION OF FOREIGN MARKETS FOR U.S. FARM PRODUCTS

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